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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/401,659 | 09/23/1999 | HIROYUKI OGINO | 35.C13851 | 4965 |

5514 7590 06/19/2002

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EXAMINER

SCHWARTZ, PAMELA R

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1774

DATE MAILED: 06/19/2002

15

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/401,659

Applicant(s)

OGINO ET AL.

Examiner

Pamela R. Schwartz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 6-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

1. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshino et al and Eguchi et al. (EP 709,222 and EP 701,904 respectively).

Each of the references discloses a recording medium having a substrate and an ink receiving layer of alumina hydrate of boehmite structure on the surface thereof. Yoshino et al. disclose the criticality of the crystallite size in a particular direction (the Abstract) and Eguchi et al disclose the degree of parallelization (page 4, page 7 and the examples), the particle size and shape, and the pore volume (page 5, lines 7-15). It is noted that Eguchi et al. measure parallelization degree in a different manner than applicants so the values do not correspond although the property is one recognized in the art. Eguchi et al do not specifically discuss the particle thickness but do so inherently by disclosing the particle shape and the maximum particle length or diameter. In addition, the references disclose methods of making the alumina hydrate and recording medium which are the same or similar to those instantly disclosed and state that processing conditions are used to control the properties of the alumina hydrate (for example, see Table 1 on page 9 of Eguchi et al. which lists some of the processing conditions and the properties that result.

Since the properties that applicants' desire to achieve have been identified in the prior art, as well as the methods of achieving variations in these properties, it would have been obvious to one of ordinary skill in the art to utilize these disclosures to form an alumina hydrate and recording medium having properties resulting desired printing results. The experimental modification of the prior art in order to ascertain optimum operating conditions (for example, determination of crystallite size in the direction of the

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(020) plane or particle thickness) fails to render applicants' claims patentable in the absence of unexpected results. In re Aller, 105 USPQ 233.

2. Claims 1,4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshino et al and Eguchi et al. (EP 709,222 and EP 701,904 respectively) as applied to claim 1 above, and further in view of Misuda et al. (5,104,730) or applicants' admissions on page 4 of the specification.


Misuda et al teach that it is known to utilize a layer of silica powder over a layer of pseudoboehmite in a recording sheet in order to avoid the problem of hindered color development (col. 4, lines 47-61). On page 4 of their specification, applicants admit that use of such a silica layer is also known in the art to reduce scratch marking. Based upon these teachings, it would have been obvious to one of ordinary skill in the art to cover the alumina hydrate layer of the primary references with a silica layer to achieve one or more of the desired benefits taught by the secondary art.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pamela R. Schwartz whose telephone number is 703-308-2424. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly, can be reached on (703) 308-0449. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

PRSchwartz
June 16, 2002



PAMELA R. SCHWARTZ
PRIMARY EXAMINER